

# A-MEGA

synchronous magnetic film  
**sound recording system**

RECORDER CATALOG



**AMEGA corporation**

**Proudly presents its**

**MODERN line of motion**

**picture sound recorders**

THE AFFILIATION WITH **OMEGA ENGINEERING COMPANY** HAS GIVEN EVERY ITEM IN THE LINE OUTSTANDING DESIGN AND ENGINEERING CONCEPT. FOR 18 YEARS **OMEGA** HAS SERVED INDUSTRY WITH EQUIPMENT AND COMPONENTS, BOTH ELECTRONIC AND MECHANICAL. IT HAS KEPT PACE WITH "SPACE AGE" TECHNOLOGY UTILIZING LATEST TECHNIQUES AND MATERIALS.

AMEGA RECORDERS AND DUBBERS HAVE BEEN "TOOLED" FOR MANUFACTURE RESULTING IN BETTER PERFORMANCE, LOWER MAINTENANCE, INTERCHANGEABLE PARTS, AND BETTER VALUE. THE MODULAR CONCEPT IS USED THROUGHOUT THE ENTIRE SOUND SYSTEM FOR FLEXIBILITY.

THE EXTRAORDINARY AMEGA INTERCHANGEABLE TRANSISTOR MODULE WAS DESIGNED FOR WORLD WIDE COMMUNICATIONS. IT IS USED IN ALL AMEGA RECORDERS, MIXERS, REPRODUCERS AND AMPLIFIERS. THESE COMPONENTS ARE AVAILABLE FOR THE STANDARDIZATION OF THE COMPLETE STUDIO SOUND SYSTEM. MANY STUDIOS HAVE REFITTED THEIR RECORDER AND REPRODUCER TRANSPORTS WITH AMEGA LOW IMPEDANCE HEADS AND MODULE AMPLIFIER COMPONENTS.

THE MODERN DEVELOPMENTS FROM AMEGA RESEARCH, PLUS PRODUCTION KNOW-HOW MAKES IT POSSIBLE TO SUPPLY THE MOST-UP-TO-DATE QUALITY EQUIPMENT AT SENSIBLE PRICES.

THE AMEGA **WARRANTY** EXTENDS TO THE DEALER AND THE CUSTOMER, WITH AIR MAIL PARTS SERVICE TO FREE COUNTRIES ALL OVER THE WORLD.

**MADE IN U. S. A.**



**QUALITY**



**RELIABILITY**



**SERVICE**

"standard"

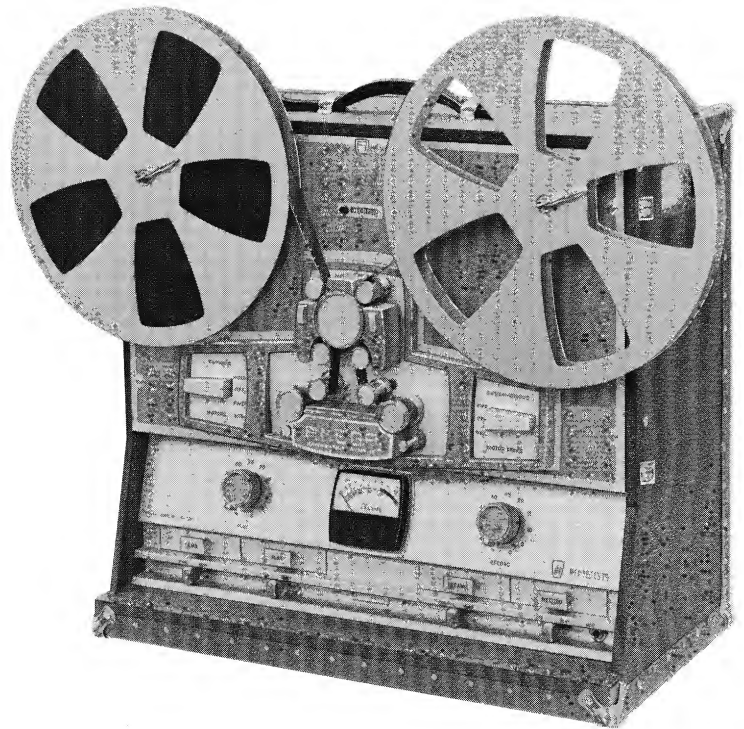
## AMEGA A-1

A complete record/play system self-contained in one portable carrying case. Unit has microphone input, film direct monitor through head phones.

Plug in modules include bias oscillator amplifier, record amplifier, microphone preamplifier and play-back preamplifier with gain control.

Two torque motors with electric differential for take up and hold back. Unit rewinds film tightly in either direction.

Mechanical unit panel,  $10\frac{3}{4}$ " x 19".  
Amplifier panel,  $5\frac{1}{4}$ " x 19".

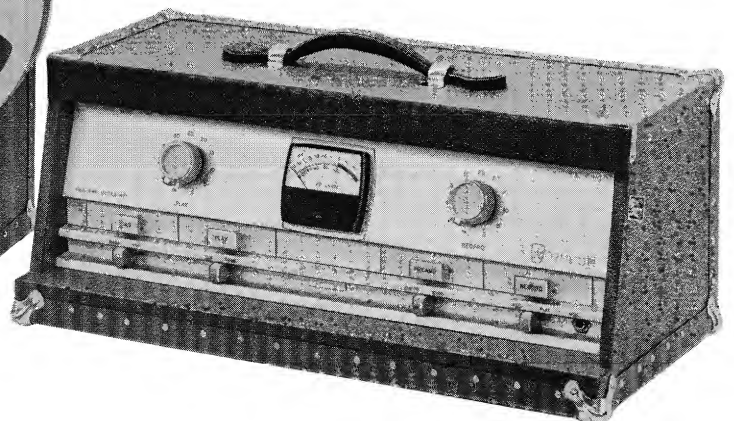
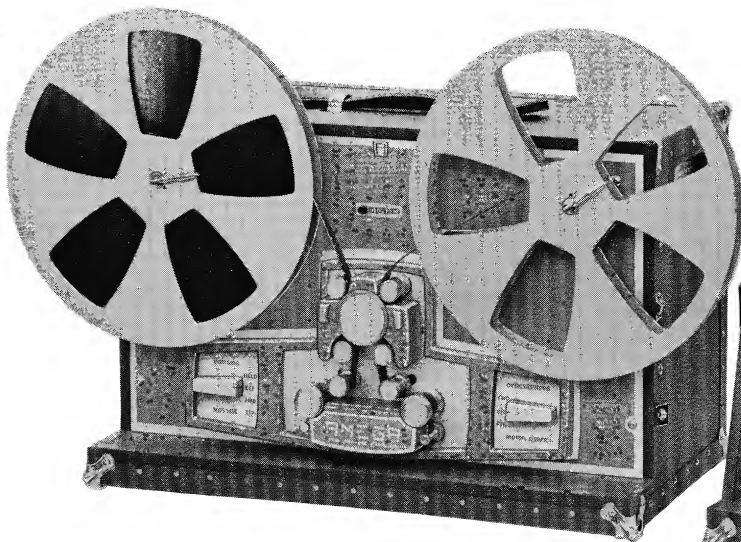


New "space age" design reflects itself throughout the entire A-1 and A-2 standard sound systems. Instrumentation type reels are 1200' capacity and are supplied with each recording system. Reels are split-apart type for ease in loading and unloading. Units are available for 50 or 60 cycles, 110 or 220 volts single-phase, and 220 volts three-phase.

## AMEGA A-2

Model A-2 is identical to Model A-1 both electrically and mechanically.

Plug in modules are bias oscillator amplifier, record amplifier, microphone preamplifier and playback preamplifier with gain control.



Model A-2 has standard mechanism with record/play amplifier in separate case. Two-case model has utility for both studio and portable use.



# AMEGA M-2

"heavy duty"

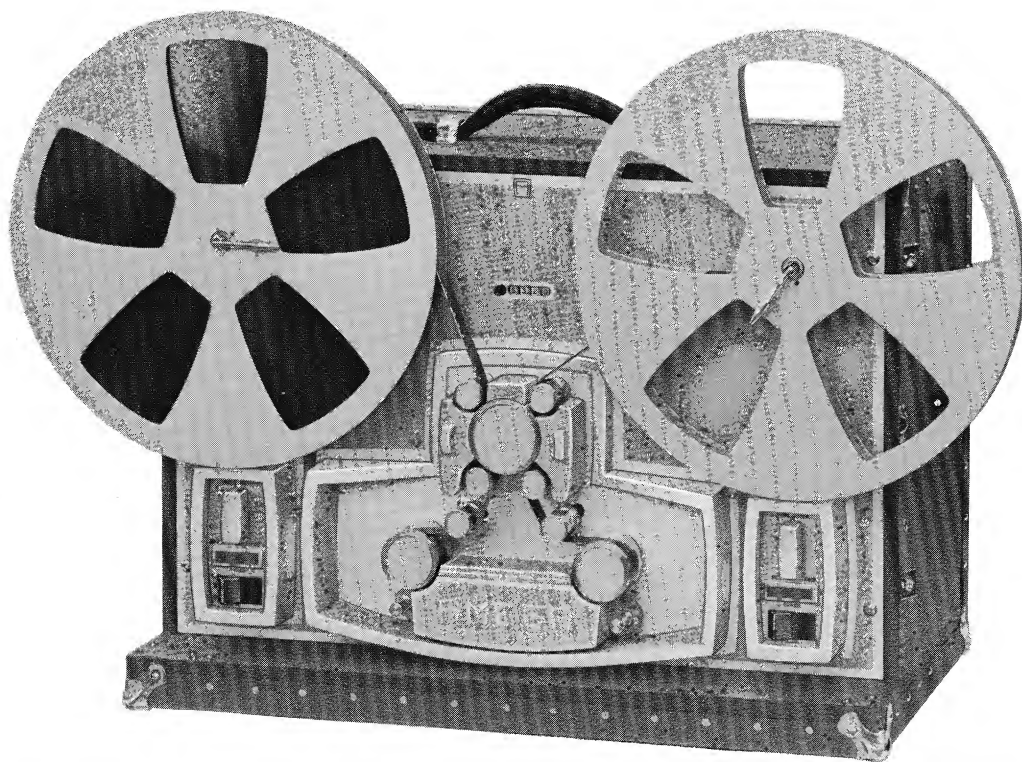
## STUDIO-PORTABLE RECORDING SYSTEM

... designed to include all the latest features and technology now employed in the space industry. A complete recording system for portable or studio use.

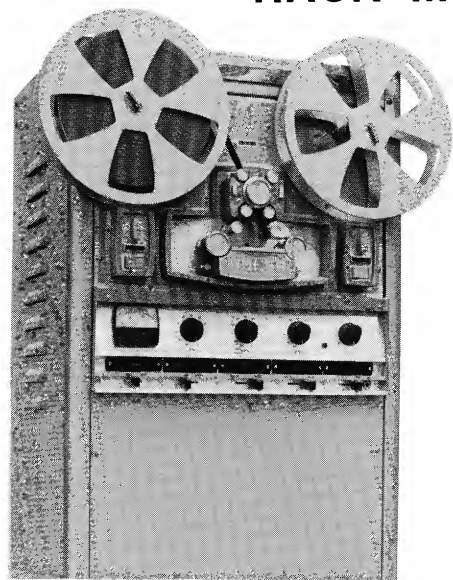
Instrumentation type split-apart reels are for ease in loading film. Two 1200' capacity reels are furnished with M-2 Recorder.

Two torque motors for take-up and rewind have electrical differential in torque for hold-back and take-up. Film is wound tight in either direction.

New ball bearing dampening system holds flutter and wow to less than .15% for 16mm and 0.1% for 35mm.



## RACK MOUNT "heavy duty" STUDIO RECORDER



The M-2 studio recorder shown with two channel record reproduce amplifier unit can be ordered with zero in zero out audio. See amplifier catalog for details. As the nomenclature suggests, the M-2 studio model is for "heavy duty" requirements. For around the clock operation such as the service studio, a remote control is available which can be located at the mixer or console.

Model M-2-R complete with rack, sync motor, two torque motors and power supply. Two channel record reproduce amplifier with speaker output.



# M-2

## RECORDING AMPLIFIER MIXER

... has two microphone input channels with master gain control. Solid state transistorized amplifiers, bridging inputs for high level signals, output 600 ohms, 0 level. Head phones for monitoring direct or film signals. Transistorized power amplifier for speaker monitor and output.

V-U meter reads Bias for Record Oscillator.

Amplifier bias oscillator,  
Record amplifier,  
Play-back pre-amplifier and  
Microphone pre-amplifiers  
plug in the front panel.

Dialogue equalization  
for each input channel.

All plug in modules  
for recorder, mixers  
and re-recorders  
are interchangeable.

Plug-in amplifiers have special  
aluminum enclosure;  
transistors are exposed  
for ventilation. Circuit board  
is in groove and can  
be removed if necessary.



## SPECIFICATIONS

**Film type:** 16mm, 17½mm and 35mm.

**Tracking:** Edge or center track for 16mm.  
Standard tracking for 17½mm and 35mm.  
Other tracking and heads available.

**Drive:** Salient pole synchronous motor.  
Standard unit 110 volts, 60-cycle, single-phase.  
Available at no extra cost: 50-cycle, single-phase.  
220 volts, single-phase, 50 or 60-cycle.  
220 volts three-phase, 50 or 60-cycle.

**Take-up/Rewind:** Two torque motors with electrical differential for tight wind in either direction.

**Frequency Response:** 45 cps to 10000 cps, ± 2 db.

**Distortion:** Less than .1% total harmonic from film. Recording 10 db below film saturation.

**Signal-to-Noise Ratio:** Better than 58 db at .1% distortion.

**Flutter-to-Wow:** 0.15% maximum RMS overall.  
.01% maximum RMS overall for 35mm.

**Inputs:** Two microphones, 50 or 250 ohms.  
Two bridge inputs, 600 ohms.

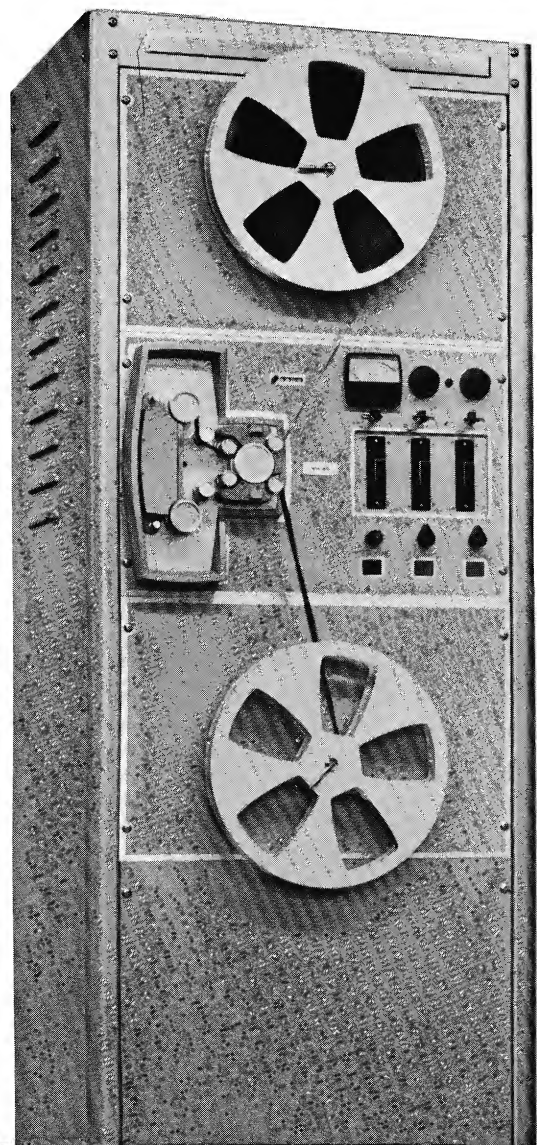
**Output:** 600 ohms, 0 level. Speaker output, 2 watts.

**Monitor:** Film-direct switching for headphones.



# AMEGA M-5

## "studio" recording system



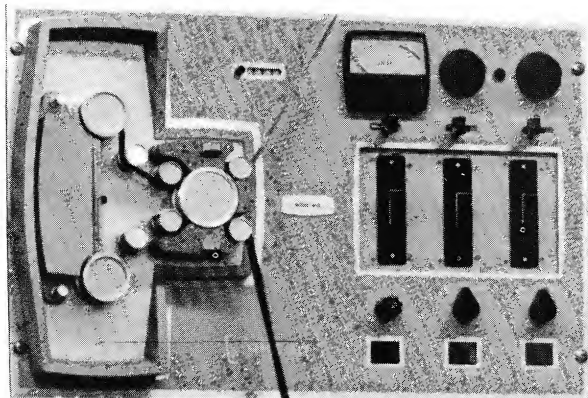
The M-5 Studio Model was designed for 35 MM master recording. In keeping with modern concepts, illumination push button controls are used for various functions. As a master recorder, the system can be remoted to the console with complete control.

The basic design utilized a heavy duty type mechanism with synchronous drive motor and provisions for sync-selsyn or distributor type interlock. The film capacity is 3,000 feet with fast forward fast reverse, differential torque for tight wind of the film in either direction.

The record and play amplifiers are standard Amega interchangeable modules. The input is 600 ohms zero level and the output is 600 ohms zero level.

The bias oscillator is so designed that it has sufficient output power for the Amega erase head feature. The erase head can be ordered with the equipment or be installed at some later date.

As pictured, the unit is complete with rack cabinet, power supply, synchronous motor and two torque motors.



Switching is provided for bias read, film direct, record play, start stop, fast forward fast reverse. The film direct function can be remoted to the console as well as the record-play, stop-start modes.

# AMEGA M-3 and M-4

PORTABLE 16mm synchronous magnetic

## FILM RECORDER



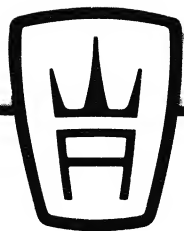
Two models are available. The M-3 Portable with nickel cadmium rechargeable batteries adequate for two hours of continuous field recording.

The M-4 is supplied for 110 volts 50 or 60 cycle operations for use where the mains power is always available. The functions are identical.

Actual photographs and additional specifications upon request.

- Standard 16mm 400 ft. reels of magnetic film for ten minutes of continuous operation. Split-apart self-contained reel assemblies permit ease of loading.
- Salient pole synchronous motor is gear coupled to the sprocket drive. Absolute sync is achieved from camera 60 cycle pulse signal. The 60 cycle pulse signal from the camera, amplified through the inverter, controls the speed of the synchronous motor. Built-in 60 cycle frequency generator permits using recorder for synchronous sound with no external source of power or frequency regulation.
- All metal case provides rugged enclosure for mechanism and amplifier.
- Standard switching and controls include record gain control, playback gain control, direct monitor control, separate film-direct, record, playback, sync forward, external-internal 60 cycle control and battery test switches for amplifier power supply and inverter power supply. Separate forward, reverse switch for rewind, internal/external AC power switch and music/dialogue switches are also provided.
- Two torque motors are used for take-up and rewind.
- The Amega M-3 is ideal for field use with any camera which has a 60 cycle output generator, or with camera driven by synchronous motors. Absolute lip-sync is achieved.
- Recording directly on 16mm magnetic film eliminates the transfer process which is necessary when using 1/4" tape. The result means savings in dollars and time.
- All SMPTE and industry standards are maintained with the use of 16mm magnetic film. Playback is immediate, and the editing process is greatly simplified.
- The nickel cadmium battery power pack is removable and rechargeable. Spare power pack enables the operator to have one set of batteries charging while the other set is in use.
- Audio circuitry and components are equal to the Amega studio recorders. Miniaturization has meant no compromise in quality or specifications. The use of plug-in modules permits the operator to maintain the equipment to a large degree.
- All controls are designed and placed for maximum convenience of operation. The M-3 will operate in either a horizontal or vertical position, under a wide variety of environmental extremes.





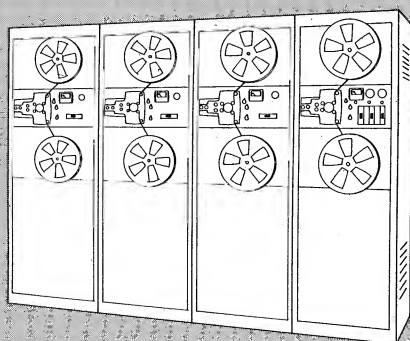
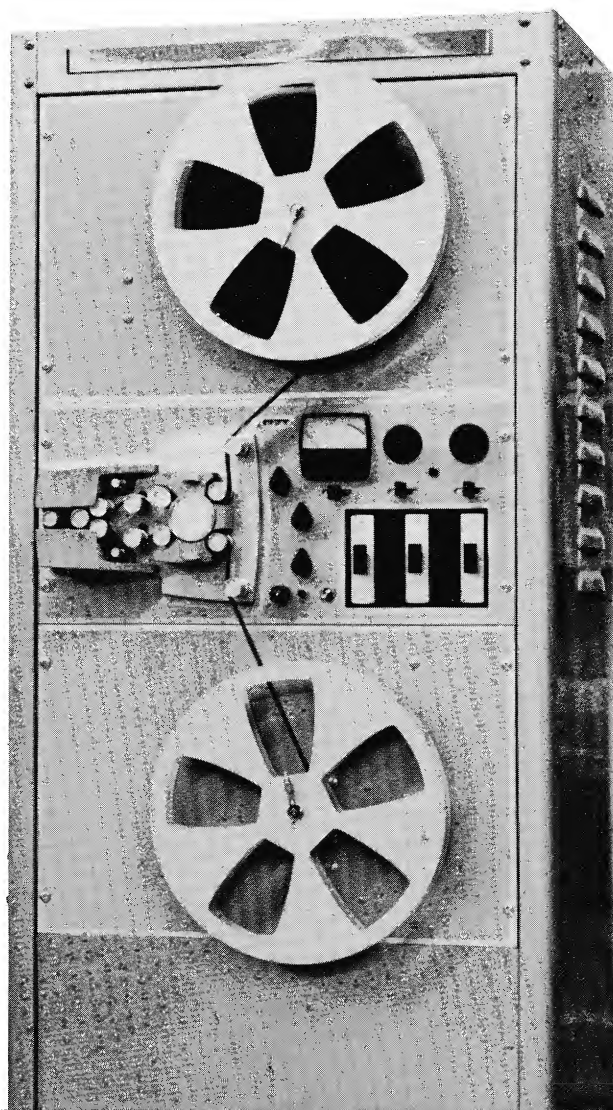
# AMEGA M-6 "mono" system

**COMBINATION 16-35 mm    16-17½ mm    17½-35 mm**

The Amega M-6 "Mono" system was designed for the service studio dealing in 16, 17½ and 35 MM sound requirements. This system has the new instrumentation type drive developed by Amega for the computer and automation industry. It will take film splices with minimum distortion and sets new standards for minimum wow and flutter plus maximum head contact.

The film capacity is 3,000 feet with differential torque motors. Film can be tight wound in either direction. All controls are provided on the main panel including the audio functions. The Amega interchangeable module is used for recording and play-back. FILM DIRECT and RECORD PLAY switching functions are included. The bias oscillator is plug-in type with switching for bias read on the VU meter. A four digit push button reset type footage counter with sprocket drive is included.

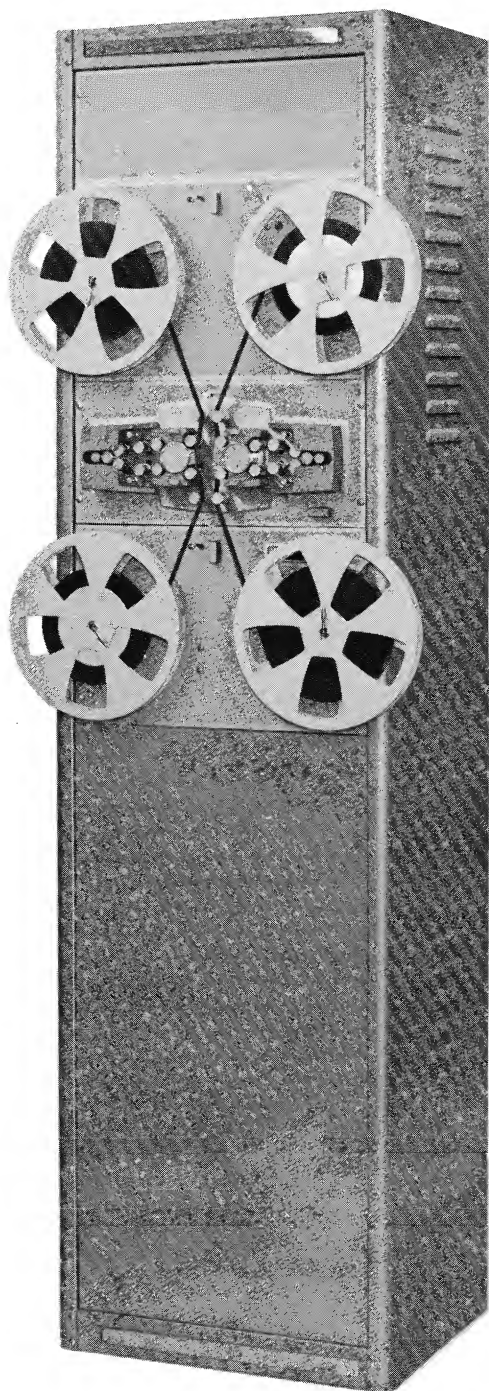
The unit as pictured is supplied with a 77" rack cabinet providing a convenient threading height. The power supply synchronous motor and two torque motors are also included.



The mounting of the take-up supply reels above and below the mechanism permits several racks to be installed directly adjacent to each other. For the studio where space is not a critical problem, the M-6 configuration permits several operators to load and unload simultaneously or to operate each of the several units individually for monitoring or rerecording sessions. All Amega recorders are provided with motor output shafts for the direct coupling of interlock motors. See accessory catalog for details. Actual photographs and additional specifications will be sent upon request.

# COMBINATION

16—35 MM



The M-7 "Duo" System provides the operator with the convenience of direct transfer from 16 MM to 35 MM, 17½ MM to 35 MM or 17½ 45 feet per minute to 35 MM or 16 MM. One recording amplifier with provision for switching equalization from 36 feet per minute or 90 feet per minute can be utilized for the combination system. For transfer, one additional Amega plug-in playback module completes the system.

All switching functions are conveniently located. Film capacity is 2,000 feet with differential torque motors for each mechanism. (See Amplifier catalog for different types to fit your requirements).

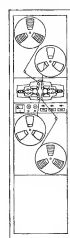
The "Duo" Two unit drive can be mechanically interlocked at no extra cost. Individual motors for 36 feet or 90 feet are provided. Secondary speeds are accomplished through switching provided on the front panel.

## AMEGA M-7

"duo" system

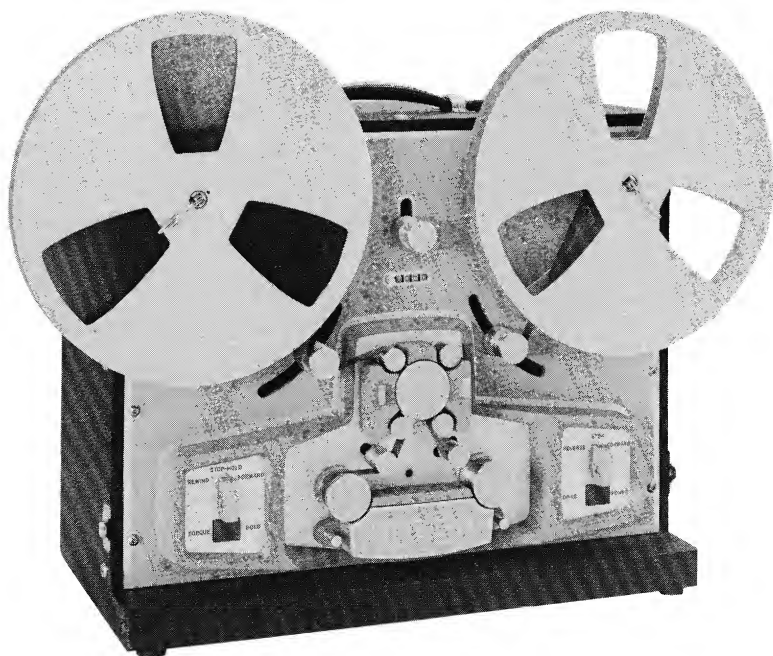


Four combination units can be mounted in a single 77" rack cabinet. The zero in zero out record reproduce amplifier is located in the center of the rack.



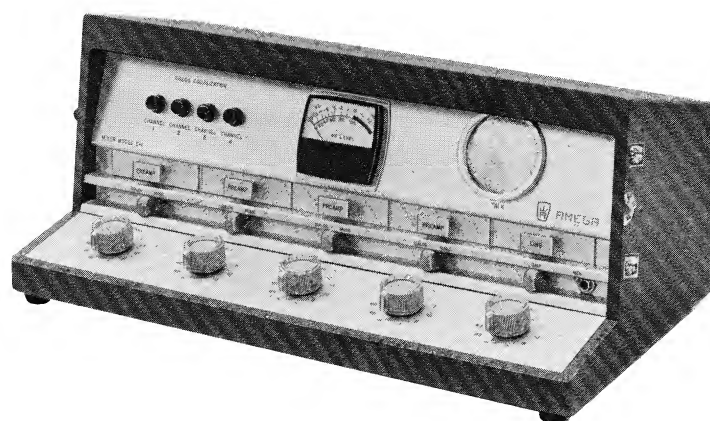
When racks are to be mounted directly adjacent to each other, reels can be arranged with no overlap. Film capacity 2,000 feet.

# *The* AMEGA M-1



Revolutionary new ideas are included in the Amega M-1 Automatic System. A new type direct drive motor has been developed by Amega which requires no gearing and has constant stop start characteristics. For combination portable studio applications, the unit is supplied with a new version of the Amega E-1 Four Channel Mixer. The record play amplifier and bias oscillator are installed with the mechanical transport. The FILM DIRECT, RECORD PLAY functions are remoted to the mixer.

An erase head is included as an integral part of the head assembly and the plug-in oscillator provides the bias and erase current. Every detail in the system has been superbly designed to provide the operator with a finger tip control of all functions and the versatility necessary for any type recording situation.



The convenience of remote mixing means that the transport can be located several hundred feet from the scene of recording. The recorder mechanism is also controlled at the mixer in the FORWARD and REVERSE modes.

SEND FOR ACTUAL PHOTOGRAPHS AND ADDITIONAL DATA

**Built in**  
**ERASE - CONSOLE CONTROL**

**REMOTE**  
**CONTROL**



# MOTION PICTURE SOUND REPRODUCERS

SINGLE

DOUBLE

TRIPLE

COMBINATION

AUTOMATIC

## AMEGA

sound system



# AMEGA

## Motion Picture REPRODUCERS

were designed to have the versatility required for the well equipped studio of today. Several concepts used in the design of the reproducer systems are from Amega developments for the computer and instrumentation fields. A single dubber has more than twenty new features. Output plugs are incorporated for interlock connections with the recorder, projector and for remote control. Mechanical interlock output shafts make it possible to couple two or more units at minimum cost. For example, one selsyn motor will provide interlock for three reproducers with one selsyn at the projector and one at the recorder.

Six Amega reproducer systems provide a selection for the most diversified studio and for the independent producer.

The quality and performance specifications are the same for all models. Only special features and different configurations determine the price variation.

Amega manufactures the complete motion picture sound system incorporating the extraordinary interchangeable module. This new concept permits standardization throughout the entire studio system. As a capital investment, additional items may be added each year with the assurance that your equipment is up-to-date and has constant performance.



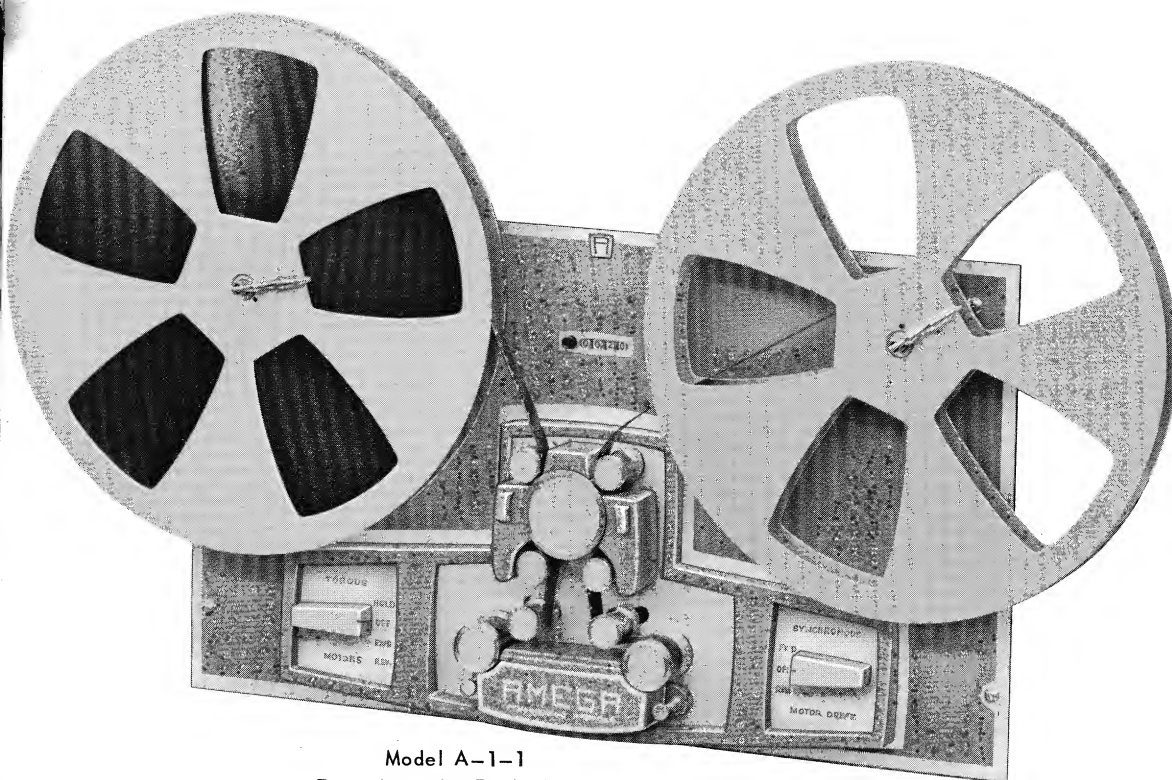
MADE IN U.S.A.

# AMEGA A-1

"standard"

## REPRODUCER

for interlock  
with recorder and projector



Model A-1-1  
Reproducer for Rack Mount

**Film type:** 16mm,

**Tracking:** Edge or center track for 16mm.  
Standard tracking for 17½mm and 35mm.  
Other tracking and heads available.

**Drive:** Salient pole synchronous motor.  
Standard unit 110 volts, 60-cycle, single-phase.  
Available at no extra cost: 50-cycle, single-phase.  
220 volts, single-phase, 50 or 60-cycle.  
220 volts three-phase, 50 or 60-cycle.

**Take-up/Rewind:** Two torque motors with electrical differential for tight wind in either direction.

**Frequency Response:** 45 cps to 10000 cps,  $\pm 2$  db.

**Amplifier Distortion:** Less than 1/4%.

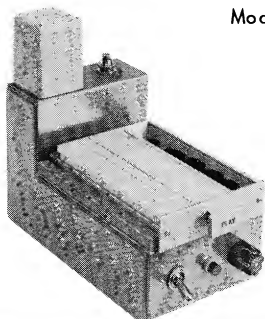
**Signal-to-Noise Ratio:** Better than 58 db.

**Flutter-to-Wow:** 0.15% maximum RMS overall.

The standard reproducer is widely used because of its compactability. The panel size is 10¾" by 19".

Consistent with other Amega units, the A-1 is complete with synchronous motor, two torque motors, four digit footage counter and numerous other outstanding features.

The system is ideal for interlock with projector for immediate double system playback of dialogue, music and effects. When used with Model A-1 recorder, transfer of pre-recorded material is simple and fool proof.



Model 1148 Pre-Amp and Power Supply

Each Amega dubber system is supplied with the Model 1148 preamp power supply. These units are interchangeable with recorder or mixer modules. The equalization and gain differences take place at the receptacle.



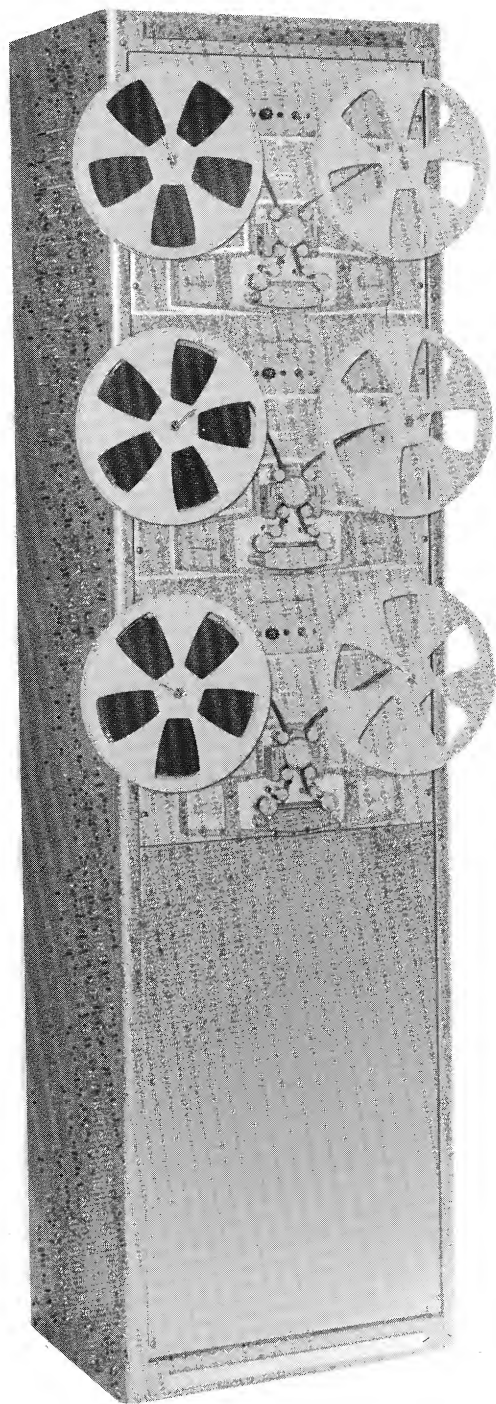
# AMEGA A-1

"standard"

## TRIPLE REPRODUCER FOR

MUSIC - DIALOGUE - SOUND EFFECTS.

INTERLOCK WITH RECORDER AND PROJECTOR



MODEL A-1-3 THREE POSITION DUBBER  
MECHANICALLY INTERLOCKED

MODEL A-1-3-S ELECTRICALLY INTERLOCKED

The Model A-1-1 Dubber system was especially designed for studios where space is at a premium. The space saving design features high quality with specifications to industry standards.

Dubber has mechanical interlock when two or three units are used for music, dialogue and sound effects.

Interlock motors can be attached to system for locking projector and recorder. Interlock components are available for both portable and rack mount units.

Model A-1 single channel dubber re-recorder has identical features to Model A-1 recording system.

### TRANSPORT

4-digit footage counter is chain interlocked with synchronous drive motor.

Head cover is removable for ease in cleaning heads and marking film for editing. Drive mechanism features ball bearing dampening system, noiseless 20-tooth sprocket ball bearing rollers and sprocket film pads which engage 4 teeth on both sides of sprocket.

Torque motors controlled for holding position during standby, fast forward and fast rewind.

Synchronous motor control for forward and reverse switching.

Two torque motors with electric differential for take up and hold back. Unit rewinds film tightly in either direction.

Plug-in head assemblies are interchangeable from one unit to the other. Housing is removable for maintenance cleaning of heads and for film marking during editing.

### PREAMPLIFIER

play-back preamplifier features modular construction and is interchangeable with recorder preamplifier.

Preamplifier output is 600 ohms 0 level with power supply and output transformer.

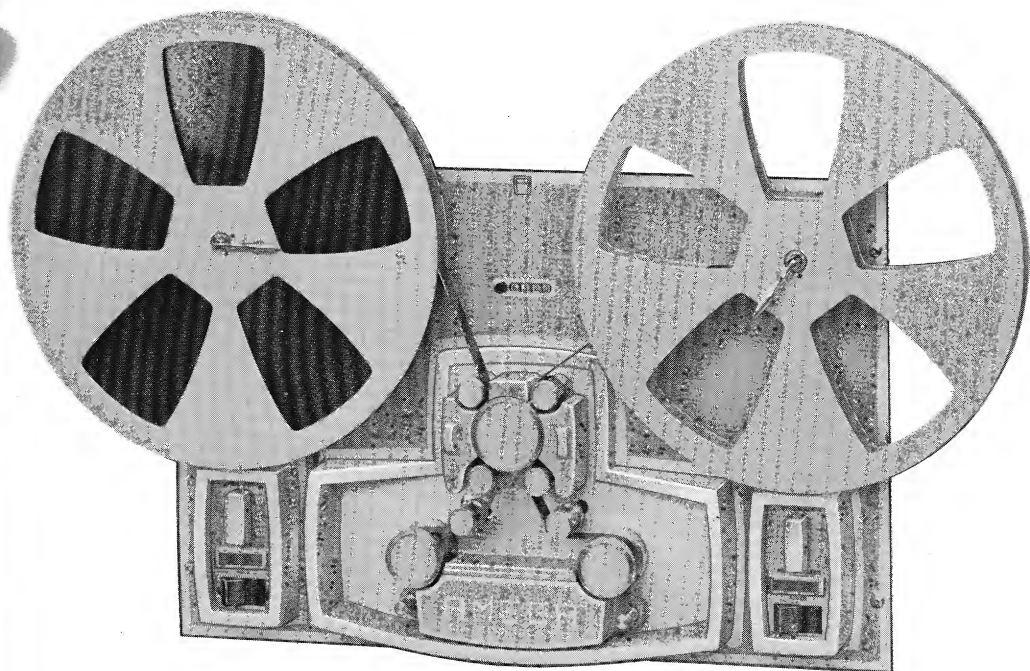




# AMEGA M-2

**"heavy duty"**

## REPRODUCER



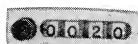
Model M-2-2 Single Reproducer

Instrumentation type split-apart reels are for ease in loading film. Two 1200' capacity reels are furnished with M-2 reproducer.

Two torque motors for take-up and rewind have electrical differential in torque for hold-back and take-up. Film is wound tight in either direction.

New ball bearing dampening system holds flutter and wow to less than .15% for 16mm and 0.1% for 35mm.

4-digit footage counter has push button reset.

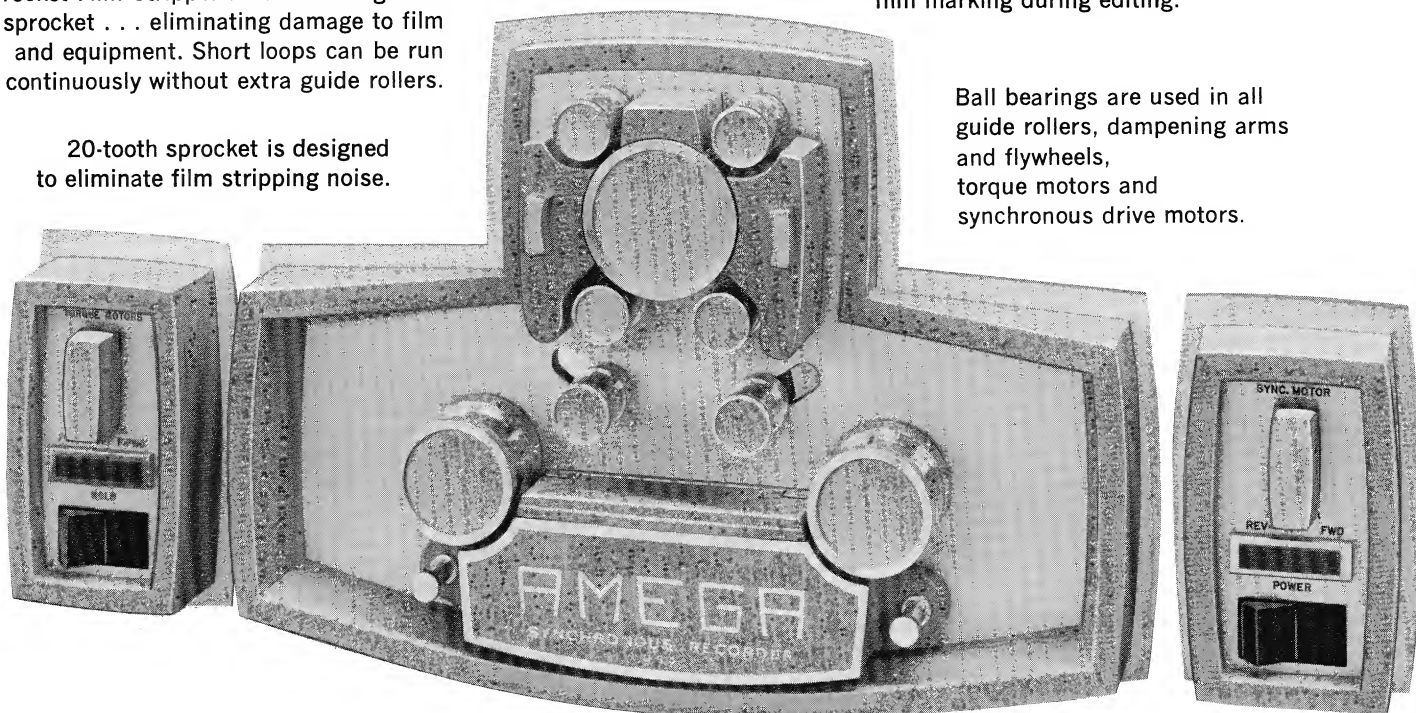


Sprocket Film Stripper meshes with groove in sprocket . . . eliminating damage to film and equipment. Short loops can be run continuously without extra guide rollers.

20-tooth sprocket is designed to eliminate film stripping noise.

Plug-in head assemblies are interchangeable from one unit to the other. Housing is removable for maintenance cleaning of heads and for film marking during editing.

Ball bearings are used in all guide rollers, dampening arms and flywheels, torque motors and synchronous drive motors.



MADE IN U.S.A.



# AMEGA M-2

"heavy duty"

## TRIPLE REPRODUCER

Designed with heavy duty features for 24 hour continuous operation. Large brass flywheels dampen the film motion for when splices are used. The M-2 system has all the modern features required for today's up-to-date studio!

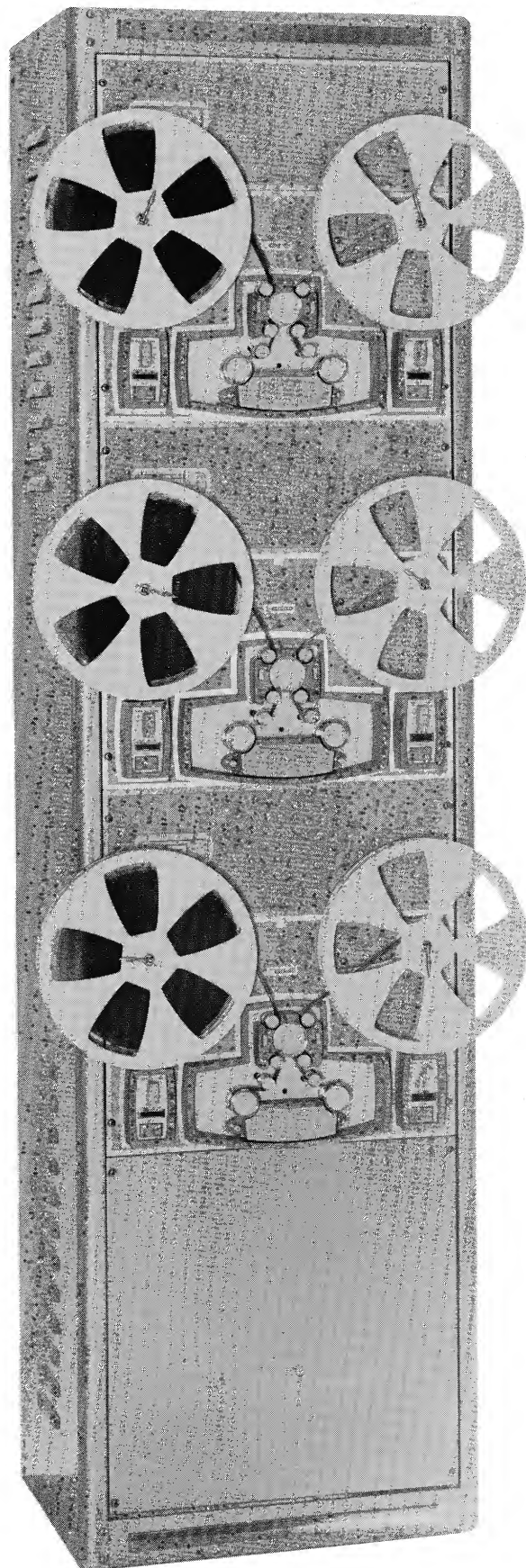
Two torque motors for take-up and rewind have electrical differential in torque for hold-back and take-up. Film is wound tight in either direction.

New ball bearing dampening system holds flutter and wow to less than .15% for 16mm and 0.1% for 35mm.

4-digit footage counter has push button reset. Sprocket Film Stripper meshes with groove in sprocket . . . eliminating damage to film and equipment. Short loops can be run continuously without extra guide rollers.

20-tooth sprocket is designed to eliminate film stripping noise.

Plug-in head assemblies are interchangeable from one unit to the other. Housing is removable for maintenance cleaning of heads and for film marking during editing.



MODEL M-2-3 THREE POSITION DUBBER  
MECHANICALLY INTERLOCKED

MODEL M-2-3-S ELECTRICALLY INTERLOCKED

### PREAMPLIFIER:

Modular plug-in Play preamplifier assembly is self-contained with power supply and output transformer. 7" x 19" panel also mounts interlock motor.



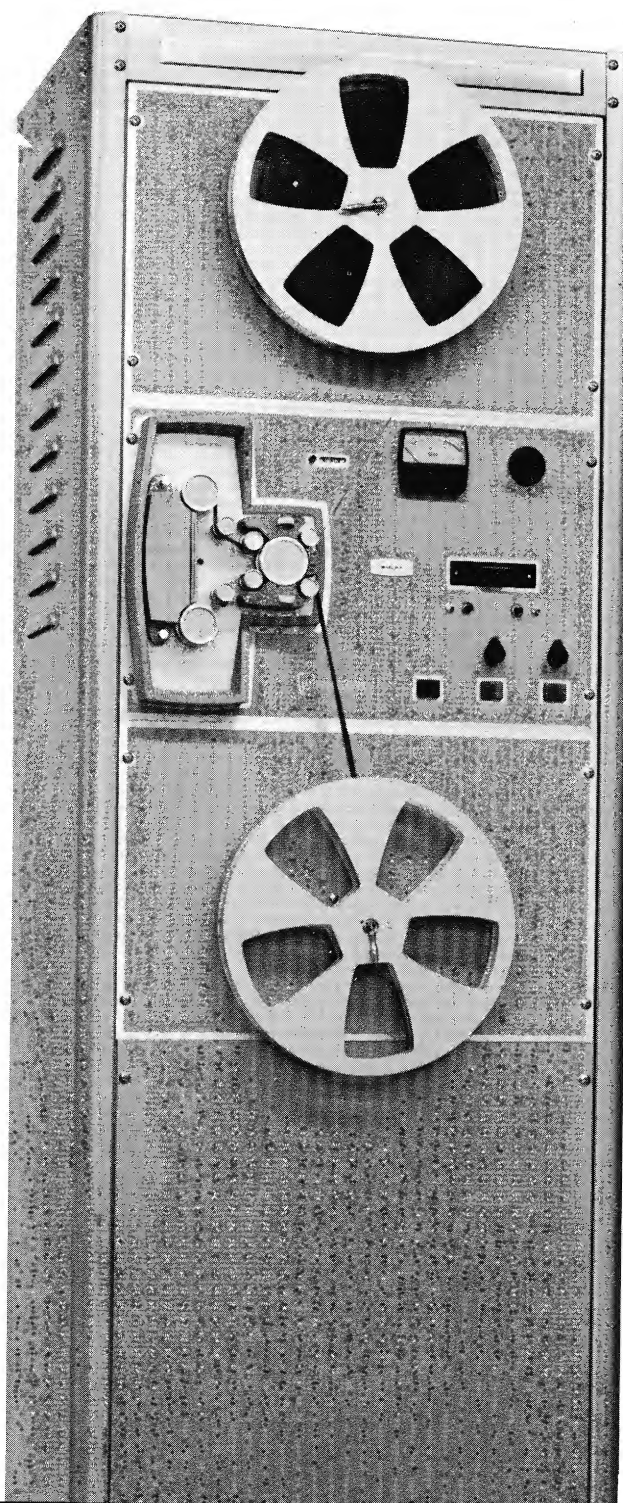
# AMEGA M-5 "studio" REPRODUCER SYSTEM

## PUSH-BUTTON "LOCAL" AND "REMOTE CONTROL

The M-5 was designed for the 35MM studio requirements – each unit complete with Sync Motor. Two Torque Motors reproduce pre-amp power supply and 77" Rack Cabinet. 3,000 ft. capacity.

To show progress for the modern studio and to meet the needs for rapid transfer and rerecording, the Model M-5 has illuminated push button controls. The system can be remotely to the mixing console with complete switching for all functions.

To maintain consistency from all type recorded tracks an output meter and gain control are included. Levels can be preadjusted to meet rerecording requirements. Equipment can be maintained periodically without the need of test equipment. SMPTE standards films can be reproduced for checking azimuth alignment, frequency response and output levels.



Available 16-17½-35MM

The Heavy Duty concept reflects itself throughout the M-5 system. Large brass flywheels are used for the filtering loop. Large film drums permit numerous splices to run through the transport with minimum wow and flutter.

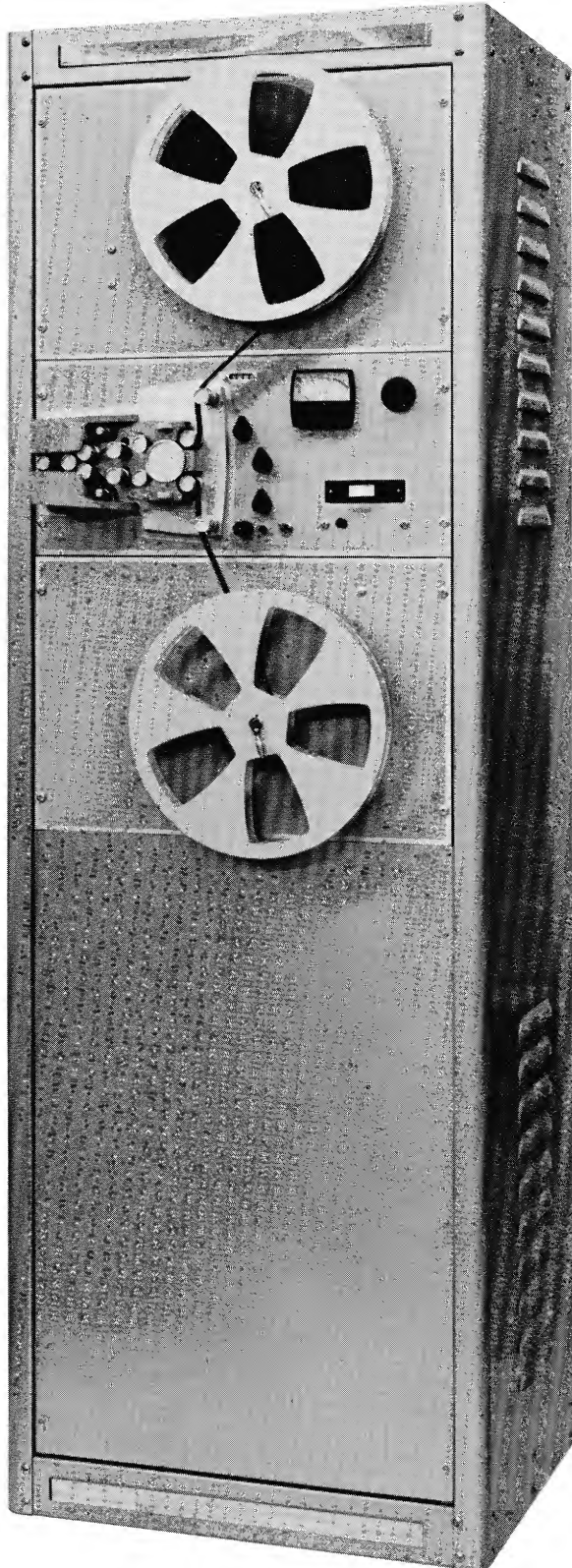
More than twenty new features are included for ease of operation, minimum maintenance and maximum output fidelity.

All moving parts are completely ball bearinged including the dampening system. If the requirements are for around the clock operation, the M-5 system will meet the test.



SEND FOR ACTUAL PHOTOGRAPHS AND ADDITIONAL DATA

# AMEGA M-6 "mono" COMBINATION



16-35MM • 36fpm 90fpm  
17½-35MM • 45fpm 90fpm  
16-17½-35 • 36fpm 45-90fpm

## AMEGA INSTRUMENTATION DRIVE

The drive mechanism included in the M-6 was designed by Amega for the computer and instrumentation fields. It features minimum distortion from splices and maximum head contact. Since the sync motor drives direct to the sprocket, it permits different speed combinations and film sizes.

For studios where there is a wide variety of film types being reproduced, the operator need only select the speed applicable to the film type and switch in the proper equalization.

Amega has pioneered the switchable equalizer system to meet the needs of world-wide standards. Additionally, the M-6 has an output meter and gain control so that various output levels can be preadjusted for the final dubbing or transfer process.

The units shown are complete with a sync motor, two torque motors, rack cabinets and power supply.





# M-7 AMEGA

# "duo"

## COMBINATION

**TWO 16MM DUBBERS INTERLOCKED**

**TWO 35MM DUBBERS INTERLOCKED**

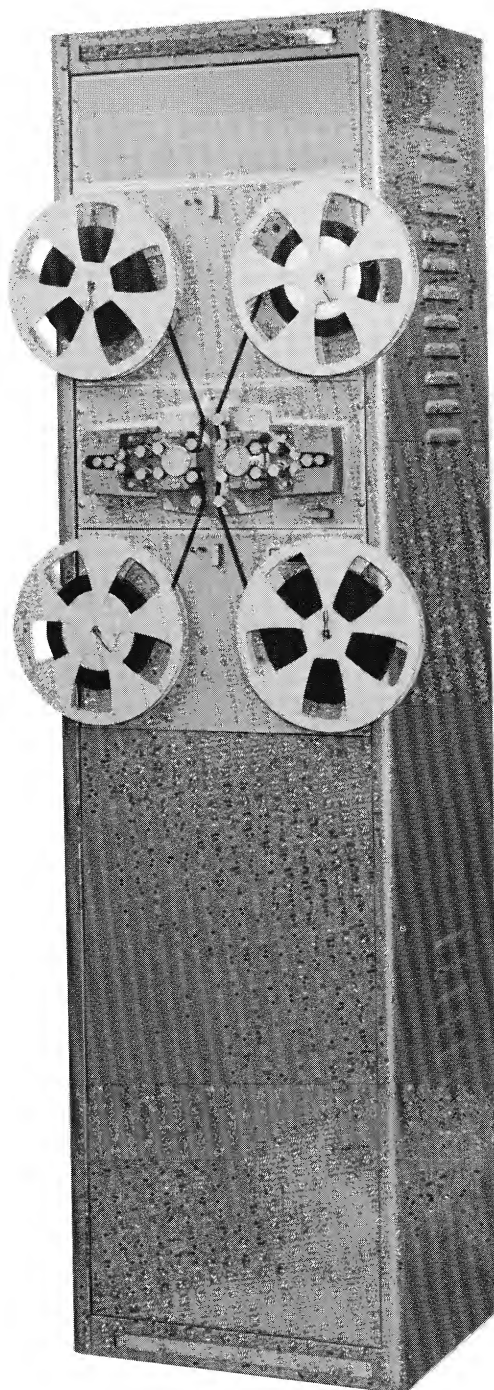
**ONE 16MM ONE 35MM INTERLOCKED**

**36fpm 90fpm 45-90fpm**

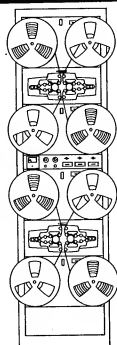
**17 1/2 MM INTERCHANGEABLE WITH 35 MM**

For the independent producer or the most diversified sound studio, the M-7 provides the ideal in convenience. For the busy operator, proper threading height is a "must". The multiple speed combinations include all contemporary standards with a wide variety of equalization selections.

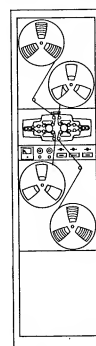
The two transports can be mechanically interlocked at no extra cost. One selsyn motor permits interlock with projector or recorder. With the addition of a record amplifier, the unit becomes a complete transfer reproducer rerecorder mastering system.



Four units can be mounted in a single rack cabinet, three reproducers for music, dialogue and effects, with one unit as the master recorder.



Configuration as shown permits several cabinets to be mounted directly adjacent to each other. Film capacity 2,000 feet.





# NEW FEATURES INCORPORATED IN ALL AMEGA DUBBERS

1. INTERCHANGEABLE PLUG-IN AMPLIFIER MODULES.
2. "SPACE AGE" ENCAPSULATION PREVENTS DAMAGE AND ASSURES RELIABILITY.
3. ENVIRONMENTAL TESTS TO MEET SPECIFICATIONS ON ALL UNITS.
4. DEVELOPED TO MEET STANDARDS FOR U.S. AGENCIES' MOTION PICTURE UNITS OPERATING THROUGHOUT THE WORLD.
5. PLUG-IN INTERCHANGEABLE HEAD ASSEMBLIES.
6. PRECISION CAST HEAD ASSEMBLY ENCLOSURE EASILY REMOVABLE FOR CLEANING AND MARKING.
7. NEW BALL BEARING DAMPENING SYSTEM ASSURES THAT FLUTTER AND WOW WILL BE HELD TO SPECIFICATIONS UNDER ALL OPERATING CONDITIONS.
8. TWO BALL BEARING GENUINE TORQUE MOTORS ON ALL RECORDERS AND DUBBERS.
9. ELECTRICAL TORQUE DIFFERENTIAL FOR TIGHT WIND IN EITHER DIRECTION.
10. NEW STRIPPER FOR SPROCKET ENABLES OPERATOR TO RUN SHORT LOOPS WITHOUT DAMAGE TO FILM OR EQUIPMENT.
11. SPROCKET PADS ENCOMPASS FOUR TEETH ON EACH SIDE TO ELIMINATE DAMAGE TO FILM WHEN STARTING OR STOPPING MECHANISM.
12. REMOTE MOTOR CONTROL OUTPUT PLUG ON ALL RECORDERS AND DUBBERS.
13. SYNC SELSYN OR DISTRIBUTOR CONTROLS CAN BE PLUGGED IN WITH PREFABRICATED INTERCONNECTING CABLES. NO COMPLICATED WIRING IS REQUIRED.
14. NEW ACCURACY FOR FILM THREADING. WHEN SPROCKET PADS ARE OPEN, DAMPENING ARMS ARE LOCKED FOR PRECISE THREADING. PROPER TENSION IS APPLIED WHEN PADS ARE CLOSED.
15. 20 TOOTH SPROCKET IS DESIGNED TO ELIMINATE FILM STRIPPING NOISE.
16. FOUR DIGIT PUSH BUTTON FOOTAGE COUNTER IS SPROCKET DRIVEN FOR ACCURACY.
17. INSTRUMENTATION TYPE SPLIT APART REELS. TWO REELS ARE FURNISHED WITH ALL AMEGA RECORDERS AND DUBBERS
18. ALL AMEGA PARTS ARE MADE FROM PRECISION DIES AND TOOLING TO ASSURE INTER-CHANGEABILITY.
19. DIRECT SYNC DRIVE.
20. INTEGRATED GEAR HEAD.
21. INTERLOCK OUTPUT SHAFT FORWARD-REVERSE.

## AMEGA GENERAL SPECIFICATIONS

The Quality and Performance Specifications are the same for all models. Only the special features and different configurations determine the price.

**Film type:** 16mm, 17½mm and 35mm.

**Tracking:** Edge or center track for 16mm.

Standard tracking for 17½mm and 35mm.

Other tracking and heads available.

**Drive:** Salient pole synchronous motor.

Standard unit 110 volts, 60-cycle, single-phase.

Available at no extra cost: 50-cycle, single-phase.

220 volts, single-phase, 50 or 60-cycle.

220 volts three-phase, 50 or 60-cycle.

**Take-up/Rewind:** Two torque motors with electrical differential for tight wind in either direction.

**Frequency Response:** 45 cps to 10000 cps,  $\pm 2$  db.

**Amplifier Distortion:** Less than 1/4%.

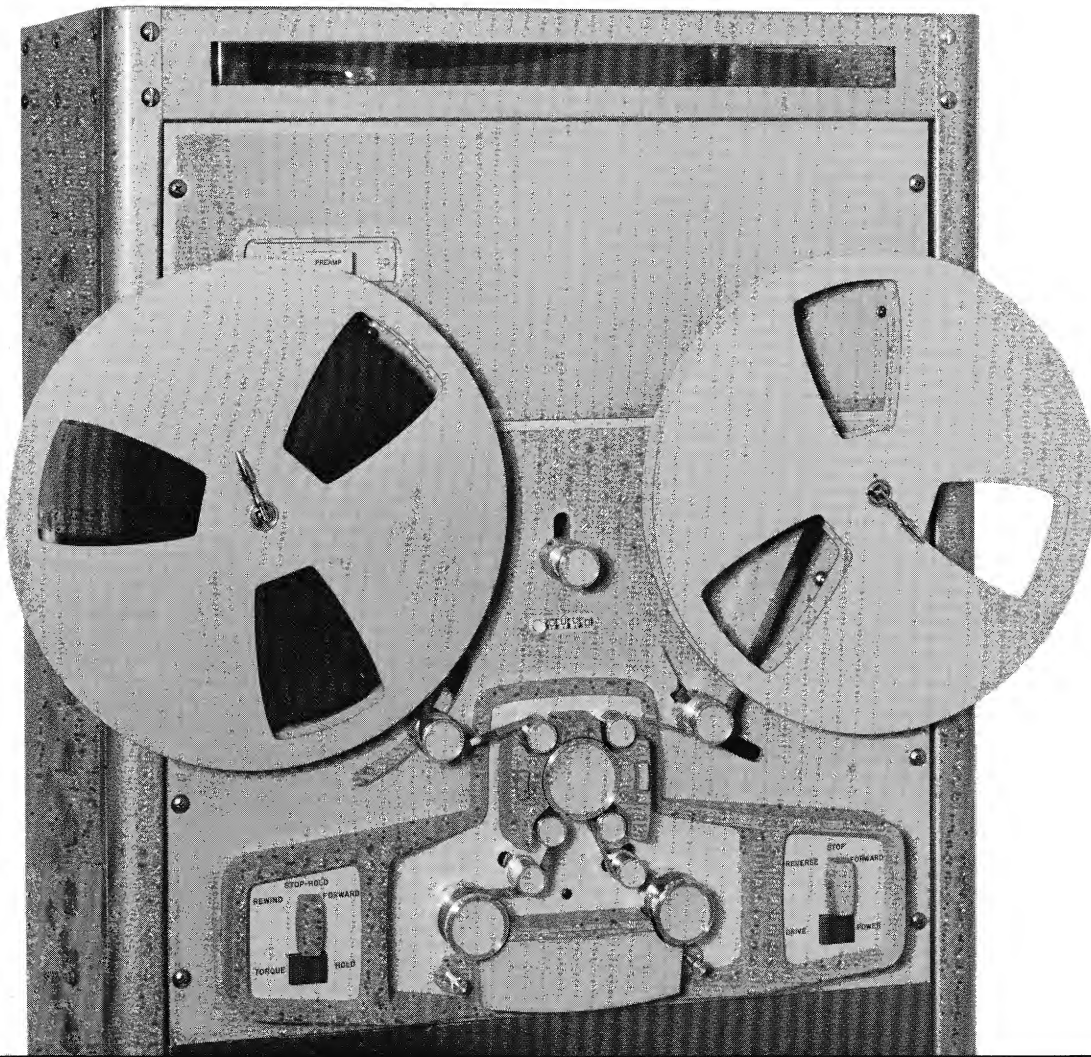
**Signal-to-Noise Ratio:** Better than 58 db.

**Flutter-to-Wow:** 0.15% maximum RMS overall.

0.1% maximum RMS overall for 35mm

# *The* AMEGA M-1

## "AUTOMATIC"

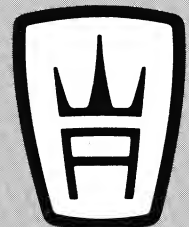


The M-1 Automatic has several new innovations. The instant stop start feature permits successive transfer of dialogue scene to scene. By remote control, sequences of dialogue can be synced to the picture for the final rerecording process.

All normal functions are included plus fast forward fast reverse through the sprocket. The Amega direct motor drive can be controlled at variable speeds for advancing or retarding from one to five frames within seconds. Actual photographs and additional information are available upon request.

## INSTANT STOP-START

FAST FWD.-REV. THRU SPROCKET



# PLEASE SEND ADDITIONAL INFORMATION ON AMEGA DUBBERS

A-1 "Standard" \_\_\_\_\_  
 M-1 "Automatic" \_\_\_\_\_  
 M-2 "Heavy Duty" \_\_\_\_\_  
 M-5 "Studio" \_\_\_\_\_  
 M-6 "Mono" \_\_\_\_\_  
 M-6 "Mono" combination \_\_\_\_\_  
 M-7 "Duo" \_\_\_\_\_  
 M-7 "Duo" combination \_\_\_\_\_

Recorders \_\_\_\_\_  
 Interlock Equipment \_\_\_\_\_  
 Mixers \_\_\_\_\_  
 Consoles \_\_\_\_\_  
 Components \_\_\_\_\_  
 Equalizers \_\_\_\_\_  
 Transolvers \_\_\_\_\_  
 1/4" Tape \_\_\_\_\_  
 Amplifiers \_\_\_\_\_  
 Heads \_\_\_\_\_  
 Microphones \_\_\_\_\_

TO: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## AMEGA

*The most progressive name in Motion Picture Sound*

Manufacturers of Motion Picture Sound Devices

AN AFFILIATE OF OMEGA ENGINEERING COMPANY

11817 WICKS STREET / SUN VALLEY, CALIFORNIA

### WARRANTY:

All Amega components are tested before and after assembly. The complete recorder is tested to meet industry standards. All parts have a one year guarantee. Defective transistor boards for bias oscillator, record amplifier, play amplifier and microphone pre-amplifier will be replaced as complete boards by your dealer or the factory.

Defective mechanical and electronics components will be replaced on exchange basis. Replacement parts will be shipped air mail without charge to the customer to any part of the world. Record and play heads are guaranteed except for normal wear. No claims under the guarantee will be entertained if parts have been misused or abused.

MADE IN U.S.A.



(Corrected forest pile)

NORTRONICS

8149-F 10th Ave. N.

Minneapolis, Minn. 55429

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